

REMARKS

Claims 1-12 are pending in the present application. Claims 1, 6, and 8 are amended above. No new matter is added by the claim amendments. Entry is respectfully requested.

Claim 6 stands objected to for an informality specified in the Office Action. Claim 6 is amended above to state "the first power supply voltage", which has an antecedent in claim 3. Entry of the amendment and removal of the objection are respectfully requested.

Claims 1-12 are rejected as being anticipated by Haraguchi (U.S. Patent No. 5,469,391), Claims 1-12 are further rejected as being anticipated by Kubota (U.S. Patent No. 5,517,151). Reconsideration of the rejections and allowance of the claims are respectfully requested.

The present invention of amended claim 1 is directed to a fuse circuit for a semiconductor integrated circuit. The fuse circuit includes a plurality of fuses; and a plurality of transmission circuits. Each transmission circuit is coupled to a corresponding fuse of the plurality of fuses. Each transmission circuit transfers signals from an input node to an output node in response to a status of the corresponding fuse, the input and output nodes of respective transmission circuits being coupled such that the transmission circuits are arranged in series. In this manner, an input signal applied to the input node of a first transmission circuit in the series is transferred to the output node of a last transmission circuit in the series when all of the transmission circuits in the series are in an active state, and the input signal is not transferred from the input node of the first transmission circuit to the output node of the last transmission circuit in the series when at least one of the transmission circuits in the series is in an inactive state.

The present invention of amended claim 8 is directed to a fuse circuit storing information related to a semiconductor integrated circuit. The fuse circuit includes a plurality of fuses each of which has first and second terminals. The first terminal of each is connected to a power supply voltage. Each fuse stores predetermined information relevant to the semiconductor integrated circuit. The fuse circuit further includes a plurality of transmission circuits. Each

transmission circuit is connected to a second terminal of a corresponding fuse of the plurality of fuses. Each transmission circuit transfers an input signal received at an input terminal to an output terminal in response to the predetermined information established by a status of the corresponding fuse. The transmission circuits are connected in series. In this manner, an input signal applied to the input terminal of a first transmission circuit in the series is transferred to the output terminal of a last transmission circuit in the series when all of the transmission circuits in the series are in an active state, and the input signal is not transferred from the input terminal of the first transmission circuit to the output terminal of the last transmission circuit in the series when at least one of the transmission circuits in the series is in an inactive state.

In this manner, in the present invention, if any of the transmission gates are inactive, in response to the status of the corresponding fuse, an input signal applied to the input node (or terminal) of the first transmission gate of the series is not transferred to the output node (or terminal) of the last transmission gate in the series. The input signal is transferred only when all of the transmission gates are active. The Applicant believes that the above amendments to claims 1 and 8 address the issue raised in the Office Action at paragraph 5, page 7, lines 18-20, and serve to distinguish the present invention over the cited prior art.

In contrast, in Kubota, assuming the nodes on the left side of each transmission block to be “input nodes”, and assuming the nodes on the right side of each transmission block to be “output nodes”, as stated in part 4 of the Office Action, then it is clear from the Kubota reference that the Kubota input and output nodes of each “transmission gate” 8 are coupled together. Therefore, a signal applied at node B is always transferred to node V_G , since they are coupled, regardless of the states of the Kubota “transmission gates”.

It is submitted that Kubota fails to teach or suggest a fuse circuit wherein “the input signal is not transferred from the input node of the first transmission circuit to the output node of the last transmission circuit in the series when at least one of the transmission circuits in the series is in an inactive state” as claimed in amended independent claim 1 (emphasis added). It is

further submitted that Kubota fails to teach or suggest a fuse circuit wherein the “input signal is not transferred from the input terminal of the first transmission circuit to the output terminal of the last transmission circuit in the series when at least one of the transmission circuits in the series is in an inactive state” as claimed in amended independent claim 8 (emphasis added). Reconsideration and removal of the rejection of independent claims 1 and 8, and the various claims dependent thereon, based on Kubota, are therefore respectfully requested.

With reference to the rejection of claims 1 and 8 based on Haraguchi, it is noted that the circuit illustrated and described with reference to FIG. 17 of Haraguchi is directed to an address program circuit wherein one of four input signals/addresses (/X1 /X2, X1 /X2, /X1 X2, and X1 X2) is output as an output signal Sb in accordance with the statuses of first and second fuses 163, 263. One of the four input signals is thus selectively output as the output signal Sb, in a manner similar to the function of a multiplexer. Thus, irrespective of the status of either, or both, of the fuses, one of the “input signals” (/X1 /X2, X1 /X2, /X1 X2, and X1 X2) is always transferred by the circuit to the output node Sb, regardless of the active/inactive states of the transmission circuits.


It is therefore submitted that Haraguchi, like Kubota, fails to teach or suggest a fuse circuit wherein “the input signal is not transferred from the input node of the first transmission circuit to the output node of the last transmission circuit in the series when at least one of the transmission circuits in the series is in an inactive state” as claimed in amended independent claim 1 (emphasis added). It is further submitted that Haraguchi fails to teach or suggest a fuse circuit wherein the “input signal is not transferred from the input terminal of the first transmission circuit to the output terminal of the last transmission circuit in the series when at least one of the transmission circuits in the series is in an inactive state” as claimed in amended independent claim 8 (emphasis added). Reconsideration and removal of the rejection of independent claims 1 and 8, and the various claims dependent thereon, based on Haraguchi, are therefore respectfully requested.

Closing Remarks

It is submitted that all claims are in condition for allowance, and such allowance is respectfully requested. If prosecution of the application can be expedited by a telephone conference, the Examiner is invited to call the undersigned at the number given below.

Respectfully submitted,

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